

AMENDMENTS TO THE DRAWINGS

The attached (4) sheets of drawings includes changes to Figs. 1, 3, 5, 6, and 7. These sheets, which include Fig. 1, Figs. 3-4, Figs. 5, and Figs. 6-7, respectively, replace the original sheet including the same figures.

In Figure 1, the legend "Prior Art" has been added.

In Figure 3, previously omitted reference number "78" has been added.

In Figure 5, previously omitted reference number "78" and "85" have been added, reference number "71" has been changed to - - 91 - -, and the cross hatch pattern has been changed to depict plastic housing 6.

In Figures 6 and 7, reference number "71" has been changed to - - 91 - -, and the cross hatch pattern has been changed to depict plastic housing 6.

Attachments: Replacement Sheets (4)
 Annotated Sheets Showing Changes (4)

REMARKS

Claims 11-30 are presently in the application. The above amendments are being made to place the application in condition for allowance.

The drawings were objected to as listed in paragraph 3, items a, b, and c of the office action.

In Figure 1, the legend "Prior Art" has been added.

In Figure 3, previously omitted reference number "78" has been added.

In Figure 5, previously omitted reference number "78" and "85" have been added, reference number "71" has been changed to - 91 -, and the cross hatch pattern has been changed to depict plastic housing 6.

In Figures 6 and 7, reference number "71" has been changed to - 91 -, and the cross hatch pattern has been changed to depict plastic housing 6.

The examiner indicated that drawings fail to show the "circular-segment shaped groove," "one segmental disk," "the suction extraction opening has a larger diameter than the inflation opening," and "an angle of at least approximately 90 degrees." Applicant disagrees as these elements 65, 66, 61, and 62 are shown in Figs. 2 and 5, as described in paragraphs [0033] and [0035]. However, the descriptive language used in the claims has been deleted.

Reconsideration of the rejection of claims 11-30 under 35 U.S.C. 112, second paragraph, is respectfully requested.

The claims were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, claim

11 recites the limitation "that region" in line 8, and claims 14 & 15 recites the term "preferably." The claims have been amended to overcome this rejection. Accordingly, withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claims 11-13 under 35 U.S.C. 102(b) as being anticipated by JP 4-203529 is respectfully requested.

Claim 11 is directed to a rotary leadthrough of a fourth axle of a Delta robot arm, the rotary leadthrough comprising

a housing,

a shaft located in an axial leadthrough of the housing and is rotatably supported in the housing, for connection to the robot arm, and

at least two unobstructed openings in the housing for cleaning the axial leadthrough, one of the at least two openings being a flushing opening and one of the at least two openings being a suction opening,

the shaft having a reduced diameter extending over a portion of its length, which diameter is less than the diameter of the axial leadthrough in a corresponding region of the axial leadthrough, thereby providing a void between the shaft and the axial leadthrough.

The examiner states that JP 4-203529 discloses a rotary leadthrough comprising every limitation of the claims, however there is no indication of which elements of the reference read on the claims. The reference appears to show a rotary joint 3 having a member 2 being pivotably supported on a shaft, where the shaft appears to be supported in a housing 1 by bearings 6. A chamber 8 appears to provide lubrication to the shaft and bearings.

JP 4-203529 does not disclose or suggest an resemblance of at least two openings, one being a flushing opening and one being a suction opening. Furthermore the reference does not show the shaft having a reduced diameter extending over a portion of its length. On the contrary, the shaft has a constant diameter over its entire length.

Accordingly, it is clear that the reference does not anticipate the present invention as required under 35 U.S.C. 102, and withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claims 11-13, 18, 19,27 & 29 under 35 U.S.C. 102(b) as being anticipated by Louviere, US 4,210,213 is respectfully requested.

Louviere shows a housing 10 of a bushing guard, a shaft 12 is attached to a bushing 20 which is in turn connected to a drill string 22 of a drilling apparatus. The guard is used for safety purposes. Screens are provided in opening 40s in the housing 10, for observation of the bushing 20. Louviere lacks any disclosure *unobstructed openings* in the housing for cleaning the axial leadthrough, and more particularly, disclosure of *one of the openings being a flushing opening* and *one of the openings being a suction opening*. The teachings of Louviere are to keep the rotary elements covered and unexposed for safety purposes. This is completely contrary to the invention which allows for open access to the axial leadthrough of the rotary leadthrough.

Accordingly, it is clear that the reference does not anticipate the present invention as required under 35 U.S.C. 102, and withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Louviere, US 4,210,213 is respectfully requested.

Louviere shows a housing 10 and a rotary shaft 12, 20, but does not expressly disclose making the housing of plastic and/or the shaft from aluminum. The examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the housing of plastic and/or the shaft from aluminum.

Regardless, Louviere is deficient in disclosing the elements as recited in the independent claim, as presented above.

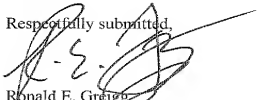
Neither Louviere, nor any of the references cited by the examiner, when taken alone or combined disclose or suggest Applicant's combination of a housing, a shaft located in an axial leadthrough, the shaft having a reduced diameter extending over a portion of its length, which diameter is less than the diameter of the axial leadthrough in a corresponding region of the axial leadthrough, and at least two unobstructed openings in the housing for cleaning the axial leadthrough, one of the at least two openings being a flushing opening and one of the at least two openings being a suction opening. Accordingly, withdrawal of all the rejections and allowance of the claims respectfully requested.

The examiner is thanked for the indication of allowable subject matter in claims 14-17, 20-23, 25, 26, 28 and 30. These claims have been rewritten include all of the limitations of the base claim and any intervening claims, and are believed to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, as discussed above.

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Entry of the amendment is respectfully solicited.

Respectfully submitted,



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